

## **ABSTRACT**

A method is provided for manufacturing pharmaceutical water by means of distillation and sanitizing the equipment used in said manufacturing. The method  
5 comprises the removal of suspended solids from chlorine-containing water by means of a multimedia filter, followed by a water-softening step and a dechlorination step. Ammonia is then removed from the dechlorinated water before subjecting the water to distillation in a mechanical vapor compression distillation unit. A portion of the generated low-pressure-steam is used to sanitize the manufacturing equipment at certain prescribed  
10 locations, and the distilled water, exhibiting United States Pharmacopoeia purified water quality, is withdrawn from the still and stored as pharmaceutical water product. No reverse osmosis operation is required. A system for carrying out the process is also provided. Sanitization is carried out while the system is in a standby mode.